

CLAIM AMENDMENTS

Please cancel claims 19-25 without prejudice or disclaimer.

Please amend claims 1, 7, and 12 as follows.

1. (Currently Amended) A method, comprising:

 fabricating a micro-electrical-mechanical system (MEMS) frequency-selective device by:

 forming a layer of material on a silicon wafer, the silicon wafer having variations in surface topology comprising at least one thick region and at least one thin region, the layer of material having variations in surface topology caused by the variations in the surface topology of the silicon wafer, the variations in the surface topology of the layer of material comprising at least one thick region and at least one thin region corresponding to the thick regions and the thin regions of the wafer, respectively; and

 forming at least one narrow region and at least one wide region in the layer of material, proportions of the narrow regions and proportions of the wide regions corresponding to the thick regions and the thin regions of the wafer caused by the variations in the surface topology of the silicon wafer, respectively.

2. (Previously Presented) The method of claim 1, further comprising:

 exposing photoresist disposed on the layer of material to light through a mask having a pattern to which near-resolution marks have been added; and

 removing portions of the layer of material to leave the narrow regions and the wide regions.

3. (Original) The method of claim 1, further comprising:

 characterizing the thick regions of the wafer as first zones;

 characterizing the thin regions of the wafer as second zones; and

 forming the narrow regions in the first zones and the wide regions in the second zones.

4. (Original) The method of claim 3, further comprising:

setting first imaging compensation for the first zones and second imaging compensation for the second zones; and

removing areas of the layer of material to leave the narrow regions in the first zones and the wide regions in the second zones.

5. (Original) The method of claim 1, further comprising mapping the surface topology of the wafer to determine the thick regions and the thin regions of the wafer.

6. (Original) The method of claim 5, further comprising ellipsometric mapping, laser mapping, or capacitance mapping of the surface topology of the wafer to determine the thick regions and the thin regions of the wafer.

7. (Currently Amended) An article of manufacture, comprising:

a machine-accessible medium including data that, when accessed by a machine, cause the machine to perform the operations comprising fabricating a micro-electrical-mechanical system (MEMS) frequency-selective device by:

forming a layer of material on a silicon wafer, the silicon wafer having variations in surface topology caused by the variations in the surface topology of the silicon wafer, the variations in the surface topology of the layer of material comprising at least one thick region and at least one thin region, the layer of material having variations in surface topology comprising at least one thick regions and at least one thin region corresponding to the thick regions and the thin regions of the wafer, respectively; and

forming at least one narrow region and at least one wide region in the layer of material, proportions of the narrow regions and proportions of the wide regions corresponding to the thick regions and the thin regions of the wafer caused by the variations in the surface topology of the silicon wafer, respectively and

~~exposing photoresist disposed on the layer of material to light through a mask having a pattern to which near resolution marks have been added.~~

8. (Original) The article of manufacture of claim 7, wherein the machine-accessible medium further includes data that cause the machine to perform operations comprising:

exposing photoresist disposed on the layer of material to light through a mask having a pattern to which near-resolution marks have been added; and

removing portions of the layer of material to leave the narrow regions and the wide regions.

9. (Original) The article of manufacture of claim 7, wherein the machine-accessible medium further includes data that cause the machine to perform operations comprising:

characterizing the thick regions of the wafer as first zones;

characterizing the thin regions of the wafer as second zones; and

forming the narrow regions in the first zones and the wide regions in the second zones.

10. (Original) The article of manufacture of claim 9, wherein the machine-accessible medium further includes data that cause the machine to perform operations comprising:

setting first imaging compensation for the first zones and second imaging compensation for the second zones; and

removing areas of the layer of material to leave the narrow regions in the first zones and the wide regions in the second zones.

11. (Original) The article of manufacture of claim 8, wherein the machine-accessible medium further includes data that cause the machine to perform operations comprising mapping the surface topology of the wafer to determine the thick regions and the thin regions of the wafer.

12. (Currently Amended) A method, comprising:

fabricating a micro-electrical-mechanical system (MEMS) frequency-selective device by:

forming a first layer of material on a silicon wafer, the silicon wafer having variations in surface topology comprising thick and thin regions, the layer of material having variations in surface topology caused by the variations in the surface topology of the silicon wafer, the variations in the surface topology of the layer of material comprising thick and thin regions corresponding to the thick and thin regions of the wafer, respectively;

forming a sacrificial layer of material on the first layer, the sacrificial layer of material having variations in surface topology comprising thick and thin regions corresponding to the thick and thin regions of the first layer, respectively; and

forming narrow and wide regions in the sacrificial layer of material, proportions of the narrow and proportions of the wide regions corresponding to the thick and thin regions of the wafer caused by the variations in the surface topology of the silicon wafer, respectively, ~~using direct write of a near-resolution pattern on photoresist disposed on the saerificial layer.~~

13. (Original) The method of claim 12, further comprising direct writing the near-resolution pattern using at least one of an electron beam, ultraviolet (UV) light, x-rays, or an optical beam.

14. (Original) The method of claim 12, further comprising forming the narrow and wide regions in the sacrificial layer of material using direct write of a near-resolution pattern on a photosensitive polymer disposed on the sacrificial layer.

15. (Previously Presented) The method of claim 12, further comprising forming the narrow and wide regions in the sacrificial layer of material using direct write of a near-resolution pattern on a non-polymer photoresist disposed on the sacrificial layer.

16. (Original) The method of claim 12, further comprising:

characterizing the thick regions of the wafer as first zones;

characterizing the thin regions of the wafer as second zones; and

forming the narrow regions in the first zones and the wide regions in the second zones.

17. (Original) The method of claim 16, further comprising:

setting first image compensation for the first zones and second image compensation for the second zones; and

removing areas of the layer of material to leave the narrow regions in the first zones and the wide regions in the second zones.

18. (Original) The method of claim 12, further comprising mapping the surface topology of the wafer to determine the thick regions and the thin regions of the wafer.

19. – 25. (Cancelled).